

What is claimed is:

1. A method for direct localized therapeutic treatment of myocardial tissue in heart having a pathological condition comprising the steps of:
  - 5 a. identifying a target region of the myocardium;
  - b. applying material directly and substantially only to at least a portion of the myocardial tissue of the target region substantially identified in step (a) to physically modify the mechanical properties of said tissue.
- 10 2. The method of claim 1 wherein the modified mechanical properties include an increase in systolic performance.
3. The method of claim 1 wherein the modified mechanical properties include substantially no decrease in global diastolic performance.
- 15 4. The method of claim 1, wherein the material applied is passive.
5. The method of claim 1, wherein said target region includes a myocardial infarct.
- 20 6. The method of claim 1, wherein said target region at least in part underlies the papillary muscles associated with a cardiac valve.
7. The method of claim 6, wherein said cardiac valve is the mitral valve.
- 25 8. The method of claim 1, wherein said material applied to the myocardial tissue is a device.
- 30 9. The method of claim 1, wherein said material applied to the myocardial tissue comprises a polymer.

10. The method of claim 1, wherein said material applied to the myocardial tissue comprises a bioactive agent.

5 11. The method of claim 1, wherein said applying step includes employing a catheter.

12. The method of claim 12, wherein said catheter is employed percutaneously.

10

13. The method of claim 1, wherein said applying step is preceded by performing a mini-thoracotomy.

15

14. The method of claim 1, wherein said applying step includes applying material intramyocardially.

20

15. A method for direct localized therapeutic treatment of myocardial tissue in heart having a pathological condition comprising the steps of :

25

a. identifying a target region of the myocardium;  
b. advancing an element across the septum of the heart to deliver material; and  
c. applying said material directly and substantially only to at least a portion of the myocardial tissue of the target region substantially identified in step (a) to physically modify the mechanical properties of said tissue.

16. The method of claim 15 wherein the modified mechanical properties include an increase in systolic performance.

30

17. The method of claim 16 wherein the modified mechanical properties include substantially no decrease in global diastolic performance.

18. The method of claim 15 wherein the material applied is passive.

5

19. The method of claim 15, wherein said target region includes a myocardial infarct.

10 20. The method of claim 15 wherein said target region at least in part underlies the papillary muscles associated with a cardiac valve.

15 21. The method of claim 20 wherein said cardiac valve is the mitral valve.

22. The method of claim 15 wherein said material applied to the myocardial tissue is a device.

23. The method of claim 15 wherein said material applied to the myocardial tissue comprises a polymer.

20

24. The method of claim 15, wherein said material applied to the myocardial tissue comprises a bioactive agent.

25

25. The method of claim 15, wherein said applying step includes employing a catheter.

26. The method of claim 25, wherein said catheter is employed percutaneously.

30

27. The method of claim 15 wherein said applying step is preceded by performing a mini-thoracotomy.

28. The method of claim 15 wherein said applying step includes applying material intramyocardially.

5 29. The method of claim 15, further comprising the step of performing an additional therapeutic or diagnostic procedure either before or after said applying step employing access to the heart gained during said advancing step.

10 30. The method of claim 29, wherein said additional therapeutic or diagnostic procedure is one or more procedures selected from the set consisting of pressure monitoring, angiography, ablation, placement of pacing leads, electrophysiology mapping, and placement of LVAD cannulae.

15 31. The method of claim 15, wherein said advancing step comprises advancing an element across the atrial septum of the heart.

32. The method of claim 15, wherein said advancing step comprises advancing an element across the ventricular septum of the heart.

20 33. The method of claim 15, wherein said advancing step comprises advancing an element across both the atrial and ventricular septa of the heart.